

Claim  
6/19/97

(WE CLAIM AS OUR INVENTION:

1. A pinless composite masonry block comprising a front surface and a back surface adjoined by first and second side surfaces, a top surface and a bottom surface 5 each lying adjacent said front, back, and first and second side surfaces,

    said block top surface comprising one or more protrusions positioned on said block top surface said protrusion comprising first and second side surfaces, said 10 first side surface is angled to interlock with one or more blocks positioned adjacent said composite masonry block, and said second side surface angled to facilitate manufacture.

2. The block of claim 1 wherein said protrusion first 15 side surface has an angle which ranges from about  $0^\circ$  to  $10^\circ$  from vertical.

3. The block of claim 1 wherein said protrusion second side surface has an angle which ranges from about  $10^\circ$  to 25° from vertical.

20 4. The block of claim 1 wherein each of said side surfaces have an inset spanning from said block top surface to said block bottom surface and wherein a portion of said block top surface comprises a protrusion which spans between said insets.

25 5. The block of claim 1 wherein said protrusion first side surface has an angle of about  $5^\circ$  from vertical and

said protrusion second side surface has an angle of about 20° from verticle, said block comprising first and second side surfaces each having first and second insets, respectively, wherein a portion of said block top surface 5 comprises a protrusion spanning from said first inset to second inset.

6. A retaining wall structure, said retaining wall structure comprising one or more courses, each of said courses comprising one or more composite masonry blocks, 10 each of said composite masonry blocks comprising a front surface and a back surface adjoined by first and second side surfaces, a top surface and a bottom surface each lying adjacent said front, back and first and second side surfaces,

15 wherein at least one of said block top surfaces comprises a protrusion positioned on said block top surface said protrusion comprising a first side surface and a second side surface, wherein said first side surface is angled to interlock with one or more blocks 20 positioned adjacently, and said second side surface is angled to facilitate manufacture.

7. The structure of claim 6 wherein said structure comprises first and second courses wherein the blocks of said first course comprise insets which are seated on the 25 protrusions of the block of said second course.

8. The structure of claim 7 wherein said retaining structure comprises a supporting matrix positioned between adjacent blocks of said first and second courses.

9. The structure of claim 7 wherein said protrusion 5 first side surface has an angle which ranges from about 0° to 10° from vertical.

10. The structure of claim 7 wherein said protrusion second side surface has an angle which ranges from about 10° to 25° from vertical. *78*

10 11. The block of claim 7 wherein said protrusion first side surface has an angle fo about 5° from vertical and said protrusion second side surface has an angle of about 20° from verticle, said block comprising first and second side surfaces each having first and second isets, 15 respectively, wherein a portion of said block top surface comprises a protrusion spanning from said first inset to second inset.

12. A block mold assembly comprising:

20 a stripper shoe, said stripper shoe having a top side, a bottom side and an outer edge, said shoe bottom side having one or more depressions, wherein said depression is contiguous with said shoe outer edge in at least one point, said shoe top side comprising one or more heating element positioned over said shoe 25 bottom side depressions.

13. The assembly of claim 12 wherein said heated  
stripper outer edge comprises a first side edge and a  
second side edge, said shoe depression spans a portion of  
said shoe bottom side from said outer edge first side edge  
5 to said outer edge second side edge.

14. The assembly of claim 12 wherein said depression  
is patterned to create a block comprising a protrusion,  
said protrusion comprising first and second side surfaces,  
said first side surface has an angle which ranges from  
10 about  $0^\circ$  to  $10^\circ$  from vertical.

15. The assembly of claim 14 wherein said protrusion  
second side surface has an angle which ranges from about  
 $10^\circ$  to  $25^\circ$  from vertical.

16. The block of claim 1 wherein said protrusion first  
15 side surface has an angle of about  $5^\circ$  from vertical and  
said protrusion second side surface has an angle of about  
 $20^\circ$  from vertical.